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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/769,594	01/30/2004	Ahmed K. Ezzat	200315891-1	8589

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HEWLETT-PACKARD COMPANY  
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EXAMINER
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GYORFI, THOMAS A

ART UNIT	PAPER NUMBER
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2435

NOTIFICATION DATE	DELIVERY MODE
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03/02/2011

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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<b>Office Action Summary</b>	<b>Application No.</b> 10/769,594	<b>Applicant(s)</b> EZZAT, AHMED K.	
	<b>Examiner</b> Thomas Gyorfi	<b>Art Unit</b> 2435	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2011.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 3-26 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/4/08 (x2)</u> .  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. Claims 1 and 3-26 remain for examination. The amendment filed 1/12/11 added claim 26; amended claims 1, 10, 12, 15, and 17; and cancelled claim 2.

### ***Continued Examination Under 37 CFR 1.114***

2. A request for continued examination under 37 CFR 1.114 was filed in this application after a decision by the Board of Patent Appeals and Interferences, but before the filing of a Notice of Appeal to the Court of Appeals for the Federal Circuit or the commencement of a civil action. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 1/12/11 has been entered.

### ***Information Disclosure Statement***

3. The information disclosure statements (IDS) submitted on 11/4/08 have been considered by the Examiner.

### ***Response to Arguments***

4. Applicant's arguments with respect to claims 1-26 have been considered but are moot in view of the new ground(s) of rejection.

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1 and 3-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gong (U.S. Patent 6,125,447) in view of “The C Book – Structures” (hereinafter, “GBDirect”).

Regarding claims 1, 12, and 17:

Gong discloses a method, computer system and computer readable medium for providing flexible protection by decoupling protection from privilege, comprising: enabling receipt of information describing two or more types of protection (col. 8 line 40 – col. 9, line 37); enabling receipt of information describing a relationship between said two or more types of protection and portions of code that are executed in a same privilege level of the computer system, where said relationship is not required to be linear (Ibid; and col. 9, lines 40-53); and enabling the association of said information describing two or more types of protection and said information describing said relationship with said portions of code (Ibid, and col. 10, lines 57-62) wherein a first portion of code allowing a second portion of code to access the first portion of code does not depend on the second portion of code allowing the first portion of code to

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access the second portion of code (col. 12, line 40 – col. 13, line 10). Per claim 12, Gong further discloses a memory unit and processor (col. 4, lines 25-45).

Gong's disclosure is limited to explicitly discussing the preferred embodiment wherein all the pertinent software is implemented as Java objects, Java being a well-known object-oriented programming language with classes (col. 6, line 45 – col. 7, line 60). However, Gong merely *assumes* that the object oriented requirement is true (Ibid, particularly col. 6, lines 65-66); yet his preferred embodiment is illustrative but not restrictive, and variations as to the specifics of how his invention is implemented are permitted (col. 13, lines 23-30). In that vein, those of ordinary skill in the art would have known that other programming languages predating the object-oriented programming phenomenon nevertheless allowed for data objects and methods to manipulate them; perhaps the most well known example is found in the C programming language, with its use of “structs” as illustrated by GBDirect (the entire article, particularly *inter alia* its discussion on using structures and functions to manipulate said structures to implement such well-known data objects as linked lists and trees).<sup>1</sup> It would have been obvious to use C – or any other non-object-oriented programming language - as the basis for the software in the Gong invention in lieu of Java as Gong preferably discloses, as the substitution of one well-known programming language for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

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<sup>1</sup> Examiner notes that an object-oriented class, such as found in C++, is a superset of the struct data type from C (see Sebesta, page 423, “10.5.4.1 Encapsulation”; and Barr, page 146, 2nd last paragraph).

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Regarding claims 2, 13, and 18:

Gong further discloses wherein said relationship is user-definable (col. 8, lines 45-63, noting that the ability for a user to set permissions on at least one's home directory and the contents therein was known in the art).

Regarding claims 3, 14, and 19:

Gong further discloses wherein said portions of code are domains and each of said types of protections is defined in part by at least one or more domain attributes (col. 9, lines 40-55).

Regarding claims 4 and 20:

Gong further discloses wherein said one or more domain attributes includes a domain identifier that specifies a unique value for a particular domain (col. 9, lines 5-20).

Regarding claims 5 and 21:

Gong further discloses wherein said one or more domain attributes includes a Private Key that specifies a unique value that a particular domain must use for protecting each user that concurrently uses a particular domain (col. 9, lines 5-37).

Regarding claims 6 and 22:

Gong further discloses wherein said one or more domain attributes includes a SharedCode Key that specifies a value that a particular domain must use to access code associated with another domain (col. 9, lines 25-37).

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Regarding claims 7 and 23:

Gong further discloses wherein said one or more domain attributes includes a SharedData Key that specifies a value that a particular domain must use to access data associated with another domain (Ibid).

Regarding claims 8 and 24:

Gong further discloses wherein said one or more domain attributes includes a AllowOthers Key that specifies a value that a particular domain must use to access code associated with another domain in conjunction with said particular domain performing cross-domain switching to said other domain (col. 9, lines 25-37; col. 10, lines 27-40).

Regarding claims 9 and 25:

Gong further discloses wherein said one or more domain attributes includes a AccessOthers Key that specifies a value that a particular domain must use to request access of code associated with a particular domain on behalf of another domain (col. 9, lines 25-37; col. 10, lines 1-17).

Regarding claim 26:

Gong further discloses wherein said second portion of code is allowed to access said first portion of code after a third portion of code accesses said second portion of code and wherein said third portion of code is not required to access said first portion of code (col. 11, lines 40-67).

Regarding claims 10 and 15:

Gong discloses a method and computer system for providing flexible protection by decoupling protection from privilege, comprising: detecting a request from a first portion of code to access a second portion of code, wherein said first and second portions of code are executed in a same privilege level of said computer system (col. 9, lines 54-67; col. 11, lines 40-65); determining whether said first portion of code is allowed to access said second portion of code based on information describing two or more types of protection and also based on information describing a relationship between said two or more types of protection, wherein said relationship is not required to be linear (col. 8, line 40 – col. 9, line 37); if said relationship specifies that said first portion of code may access said second portion of code, then allowing said first portion of code to access said second portion of code (col. 12, lines 54-67); else not allowing said first portion of code to access said second portion of code (*Ibid*). Per claim 15, Gong further discloses a memory unit and processor (col. 4, lines 25-45).

Gong's disclosure is limited to explicitly discussing the preferred embodiment wherein all the pertinent software is implemented as Java objects, Java being a well-known object-oriented programming language with classes (col. 6, line 45 – col. 7, line 60). However, Gong merely *assumes* that the object oriented requirement is true (*Ibid*, particularly col. 6, lines 65-66); yet his preferred embodiment is illustrative but not restrictive, and variations as to the specifics of how his invention is implemented are permitted (col. 13, lines 23-30). In that vein, those of ordinary skill in the art would have known that other programming languages predating the object-oriented programming



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phenomenon nevertheless allowed for data objects and methods to manipulate them; perhaps the most well known example is found in the C programming language, with its use of “structs” as illustrated by GBDirect (the entire article, particularly *inter alia* its discussion on using structures and functions to manipulate said structures to implement such well-known data objects as linked lists and trees). It would have been obvious to use C – or any other non-object-oriented programming language - as the basis for the software in the Gong invention in lieu of Java as Gong preferably discloses, as the substitution of one well-known programming language for another would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

Regarding claims 11 and 16:

Gong further discloses wherein said information describing said two or more types of protection and said information describing said relationships are associated with said portions of code and wherein the method further comprises retrieving said information describing said two or more types of protection and said information describing said relationships (col. 12, lines 10-40).

### ***Claim Rejections - 35 USC § 101***

7. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

8. Claims 17-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claims are directed toward a "computer-

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usable medium”, which, absent a specific definition in the instant specification, is understood to encompass such ephemeral media as optical or electromagnetic signals on carrier waves. These transitory types of computer-usable media are non-statutory; however the Examiner respectfully suggests that the rejections can be overcome by amending the claims to recite a “non-transitory” computer-usable media, thus limiting the scope of the claims to statutory subject matter.

### ***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: the “Concepts of Programming Languages” and “Programming Embedded Systems in C and C++” both confirm that C is not an object oriented language, but rather that the C++ language was derived from C specifically for the purpose of adding object-oriented programming features into it.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas Gyorfi whose telephone number is (571)272-3849. The examiner can normally be reached on 9:30am - 6:00pm Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on (571) 272-3859. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

TAG  
2/22/11

/Edward Zee/  
Examiner, Art Unit 2435